

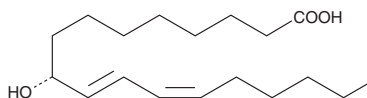
PRODUCT INFORMATION



9(R)-HODE

Item No. 38405

CAS Registry No.: 10075-11-3
Formal Name: 9R-hydroxy-10E,12Z-octadecadienoic acid
Synonym: 9(R)-Hydroxyoctadecadienoic Acid
MF: C₁₈H₃₂O₃
FW: 296.5
Purity: ≥98%
UV/Vis.: λ_{max}: 234 nm ε: 23,000
Supplied as: A 100 µg/ml solution in ethanol
Storage: -20°C
Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

9(R)-HODE is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of 9(R)-HODE in these solvents is approximately 50 mg/ml.

9(R)-HODE is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of 9(R)-HODE should be diluted with the aqueous buffer of choice. The solubility of 9(R)-HODE in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

9(R)-HODE is a monohydroxy fatty acid and metabolite of linoleic acid (Item Nos. 90150 | 90150.1 | 21909).^{1,2} It is formed from linoleic acid by COX and lipoxygenase (LO).^{3,4} 9(R)-HODE induces chemotaxis, increases the levels of chemokine (C-C motif) receptor 9 (CCR9) and chemokine (C-X-C motif) receptor 4 (CXCR4), and inhibits IL-6 release in primary human monocytes.⁵ It inhibits CD3α- and CD28-induced proliferation of isolated human peripheral blood lymphocytes when used at a concentration of 25 µg/ml.⁶

References

1. Baer, A.N., Costello, P.B., and Green, F.A. Stereospecificity of the hydroxyeicosatetraenoic and hydroxyoctadecadienoic acids produced by cultured bovine endothelial cells. *Biochim. Biophys. Acta* **1085(1)**, 45-52 (1991).
2. Camacho, M., Godessart, N., Anton, R., et al. Interleukin-1 enhances the ability of cultured human umbilical vein endothelial cells to oxidize linoleic acid. *J. Biol. Chem.* **270(29)**, 17279-17286 (1995).
3. Hamberg, M. Stereochemistry of oxygenation of linoleic acid catalyzed by prostaglandin-endoperoxide H synthase-2. *Arch. Biochem. Biophys.* **349(2)**, 376-380 (1998).
4. Kühn, H., Belkner, J., and Wiesner, R. Subcellular distribution of lipoxygenase products in rabbit reticulocyte membranes. *Eur. J. Biochem.* **191(1)**, 221-227 (1990).
5. Rolin, J., Vego, H., and Maghazachi, A.A. Oxidized lipids and lysophosphatidylcholine induce the chemotaxis, up-regulate the expression of CCR9 and CXCR4 and abrogate the release of IL-6 in human monocytes. *Toxins (Basel)* **6(9)**, 2840-2856 (2014).
6. Wefers, C., Duiveman-de Boer, T., Zusterzeel, P.L.M., et al. Different lipid regulation in ovarian cancer: Inhibition of the immune system. *Int. J. Mol. Sci.* **19(1)**, 273 (2018).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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